

Demographics and Their Relationship to the
Characteristics of New Urbanism: A Preliminary Study

By

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Abstract

Purpose. The purpose of this preliminary research is to explore if demographics affect participants' attitude towards the characteristics of New Urbanism. *Methodology.* To achieve this purpose, the literature will be reviewed to establish the central characteristics of New Urban communities. Based on the findings of the literature, a survey will be administered to gauge the attitudes of the author's "friends" and their "friends" on Facebook to determine their attitudes towards the characteristics of New Urbanism and to record their demographics. Finally, those attitudes and demographics will be compiled to establish if demographics affect the subjects' attitude towards the characteristics of New Urbanism. *Results.* Overall, the exploratory research indicates that demographics play a trivial role in the participants' attitude towards the characteristics of New Urbanism. *Conclusion.* The initial results indicate that demographics for this non-random sampling do not affect how a participant values the characteristics of a New Urban community. A scientific study should be conducted to see if these preliminary results represent the population or if different conclusions can be made.

About the Author

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Chapter I: Introduction

Starting in 2008, the United States housing market began to decline. New suburban communities being built were either stopped temporarily or discontinued completely. Homes in foreclosure are at an all-time high. Wheelock stated that “foreclosure rates have been far higher during the recent period than they were during the Great Depression” (2008, 134). The recent financial crisis places an even greater pressure on Americans and causes them to re-examine their lifestyles. Individuals who, at one time, did not have to worry about finances are now finding ways to cut costs. The suburban neighborhoods, far from work and city centers, provide these individuals no relief since they have to pay more and more for gasoline as jobs leave their area. As an increasing number of citizens are affected by the housing and financial crises facing America, alternatives to the current way of doing things are needed.

There needs to be a viable alternative to the urban sprawl neighborhoods that are currently prevalent in America today. These suburban communities, which were introduced to American society starting in the 1950s, eliminate agricultural areas, contribute to obesity, and take people away from shopping and employment (Waugh, 2004, 1). Typical, suburban neighborhoods are served primarily by automobile transportation. A heavy reliance on automobile transportation does not provide residents of these communities a way to save costs by utilizing other forms of transportation. These communities are also void of local neighborhood stores and employment opportunities for their residents. All these issues (and many more) are made worse in this current economic and housing turmoil.

The Rise of New Urbanism

In the 1980s, an alternative to the traditional suburban community was created. This new “community design paradigm” is called New Urbanism (Waugh, 2004, 2). New Urban design traits are unlike those of a standard development. A New Urban community will offer alternatives to conventional zoning and building. These alternatives generate a positive impact on a neighborhood and can help relieve pressure caused by sprawl.

One of the major benefits of a New Urban neighborhood is the choice in transportation that is offered. Residents of a New Urban community can choose to walk or bike to the store or to their place of employment because shops and offices are in the same neighborhood as residential homes. Light rail systems and public transportation, like buses, are also features of New Urbanism. These choices alone can greatly reduce dependence upon automobiles and save money, time and natural resources.

Housing choices is another feature of New Urbanism that is significantly needed in this new housing and financial market. A suburban community generally has homes built by one or two builders and maybe a park and/or a small lake. Each street is low density (7 dwelling units/acre) and offers no variety of housing. Almost all who live in these communities commute to work. New Urbanism communities have townhomes, apartments, and single-family dwellings all in the same neighborhood. Options like these provide more housing selection and utilize land in a more effective manner. By offering more economical choices in a higher density area, a community can hold more people and create a need and a market for businesses and other

services to invest into that neighborhood. This type of diversity within a locality can create jobs, help transition people from apartments to homes, and eliminate unnecessary costs.

Research Purpose

The purpose of this research is to explore which characteristics of New Urbanism are most valued by a particular set of demographics. This research will be preliminary in nature. These demographics include gender, age, race, annual income, and child status. The characteristics of New Urbanism will be identified through scholarly literature and in particular, through the Applied Research Project of Dave Waugh. This research is important because the attitudes of different demographic groups towards the characteristics of New Urbanism have not been examined. Contractors, Economic Development Directors, and other government officials can benefit from this knowledge by determining if a New Urbanism community is right for their city or locality. In areas where a need exists for greater housing options, this study will aid in determining if New Urbanism is the right alternative for the demographics of that region.

Chapter Summaries

Chapter II reviews the scholarly literature regarding New Urbanism. The history of New Urbanism is discussed as well as where it currently stands today. The major characteristics of New Urbanism are established as the chapter explores New Urbanism as a whole. Chapter III describes the methodology used to find out if demographics are a factor in participants' attitude and opinion of the characteristics of New Urbanism. Chapter IV reviews the results of the survey and the analyses of the study's hypotheses. The final chapter discusses the findings and conclusions.

Chapter II: Literature Review

Introduction

Does size really matter? After World War II, American society became convinced that bigger was actually better and that size conveyed status. Homes, automobiles, and property all grew in size. However, as these things expanded, a sense of community diminished. During the last part of the 20th century, a group of planners and developers created New Urbanism to combat the effects of this change in American society.

New Urbanism, according to the Congress for the New Urbanism, is the “restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy” (Charter). In other words, “the movement known as the New Urbanism or ‘neotraditional planning’ has emerged as an important alternative to prevailing patterns of low-density, auto-dependent land development” (Ellis 2002, 261). As Dave Waugh explains, the prevailing pattern of development described above is known as sprawl (Waugh 2004, 8). “New Urbanism emulates-and modernizes, where necessary-selected historical patterns that are consistent with life in the world of today” (Ellis 2002, 267).

This review will examine literature on New Urbanism. A further definition and a history of New Urbanism will be given. A brief overview of its supporters and critics will be examined as well as its influence in American public policy. Major characteristics of New Urbanism will be established and conceptual framework will be presented for further research.

This literature review will also reveal the question of if demographics affect attitude towards the characteristics of New Urbanism. There is no current research or literature that can be examined and discussed to answer this question. As this review will point out, only in brief instances are the subject of demographic preferences touched upon by authors and researchers of this subject. Because of the lack of literature, the author will provide hypotheses based on general inferences and the limited information obtained through this review.

An Alternative Development Practice

“For [over] the last [50] years growth has been largely directed by suburban flight, highway capacity and federal government mortgage policy” (Calthrope 1994, X). This growth at the “urban edge” has led to the decline of the urban downtown and the rural countryside surrounding urban centers

(Southworth 1993, 1). “Since World War II, the U.S. has excelled chiefly at creating [this] pattern of development known as urban sprawl” (Bess 2003, 2). By the end of the 20th century, “suburban



Image 2.1 Typical Suburban Neighborhood (sierraclub.com, 2009)

communities have grown from a few pockets of homes for wealthy aristocrats to the dominant form of American Urbanism. By 1990, the suburbs had a clear majority of both population and jobs over core cities and rural areas combined” (Southworth 1993, 1).

A “standard suburban neighborhood often permit[s] only single-family detached homes and larger plots, and their designs require the use of automobiles” (Brown and Cooper 2001, 402). On the other hand, the neo-traditional New Urbanism suggests that “[n]eighborhoods should be compact, pedestrian-friendly, and mixed-use” (Brown and Cooper 2001, 403). Unlike suburban communities, a New Urbanist neighborhood should also create “greater ecological sustainability, be more socially inclusive, have more neighborhood activity, and a greater sense of community” (Brown and Cooper 2001, 403).

History of New Urbanism

“New Urbanism emerged in the 1980s as an alternative to conventional suburban development” (Waugh 2004, 11). Before New Urbanism, congestion, pollution and poor urban conditions were the three central components of city planning throughout the majority of the 20th century (Grant 2002, 72). Although sprawl was America’s attempt at avoiding those three issues, it perpetuated them in different forms. Richard Jackson, The Director of the National Center of Environmental Health at the Centers for Disease Control and Prevention describes his commute from his suburban community this way:

The drive from my office to my suburban Atlanta home is all too familiar: it begins with a scary 7-lane thoroughfare, infamous for its strip malls, lack of sidewalks, and high pedestrian fatality rates; progresses to a jumble of connecting interstate highways packed with rush-hour traffic despite 12 or more roadway lanes; and ends with clusters of new, low-density, single family residential developments lacking public parks, playgrounds, libraries, nearby stores or cafes, sidewalks, bicycle trails, and public transit. Adults and children in my neighborhood travel by private automobile to virtually all their destinations, because they have no practical transportation alternatives (Jackson 2003, 1382).

This description shows how suburban sprawl has in fact created more congestion and pollution.

Peter Katz wrote that “[t]he costs of suburban sprawl are all around us-they’re visible in the creeping deterioration of once proud neighborhoods, the increasing alienations of large segments of society, a constantly rising crime rate and widespread environmental degradation” (Katz 1994, ix). “To some minor extent, the growth and popularity of suburban lifestyle has perpetuated and fed the growing craze of sprawl. Movies, such as ‘The Burbs’ and television series including ‘Desperate Housewives’ portray the suburban community as mainstream and desirable” which adds to its lasting popularity (Clark 2008, 256).

First introduced on a wide scale with the development of Seaside, Florida, New Urbanism- “The brainchild of architects/planners Andres Duany, Elizabeth Plater-Zyberk, and developer Robert Davis [-]...drew international attention almost immediately” due to its perception as the antithesis of urban sprawl (Cunningham 2005, 110; Sander 2002, 2). Seaside residents do not need to use cars as “most any site in the town can be reached after a five-minute walk, and garages do not dominate housing designs” (Cunningham 2005, 110; Sander 2002, 2).



Image 2.2 New Urban Neighborhood (architectureweek.com, 2008)

Another unique feature is that each home has a front porch steps away from the sidewalk (Cunningham 2005, 110; Sander 2002, 2). The community is also high density in population.

Currently, there are two approaches (or streams) to the development of New Urbanist communities. These two approaches are: the

traditional neighborhood design (TND) and the transit-oriented development (TOD). “The two

streams within New Urbanism have different visions of mixed use. Duany and Plater-Zyberk's traditional neighborhood design (TND) involves intensification and mixing compatible uses at a fine grain" (Grant 2002, 73). Builders using TND analyze every part of the building process to see how it can be utilized to its maximum capacity. Some examples would be creating apartments above garages, apartments over stores or other structures, and making it possible for residents to work from their homes (Grant 2002, 73). With the TND approach, the neighborhood is self-sustaining. Residents are able to live and work on the same block or in the same area. The second stream in New Urbanism is transit-oriented development (TOD). TOD "concentrates development in nodes associated with transit stations. Commercial, office, entertainment, and high-density residential uses congregate near the station" (Grant 2002, 74). Peter Calthrope created this form of New Urbanism. Unlike the TND approach, transit-oriented development provides its residents easy access to work and entertainment by building near these hubs.

Supporters and Critics of New Urbanism

As with anything, New Urbanism has its share of both supporters and critics, each side dispensing the pros and cons of this type of planning. "Many major officials, including governors, Secretaries of Housing and Urban Development, and even Al Gore, have expressed support for the ideas of this design movement" (Cunningham 2005, 115). In 2010, the Environmental Protection Agency suggested:

By designing neighborhoods that have shops, offices, schools, churches, parks, and other amenities near homes, communities are giving their residents and visitors the option of walking, bicycling, taking public transportation, or driving as they go about their business. A range of different types of homes make it possible for

senior citizens to stay in their homes as they age, young people to afford their first home, and families of all stages in between to find a safe, attractive home they can afford (EPA 2010).

Supporters of New Urbanism “believe that [its] residential design features can satisfy residents, encourage local walking and use, support pleasing neighborhood contacts, and bolster a strong sense of community, while increasing densities beyond the suburban norm” (Brown and Cooper 2001, 402). New Urbanists see conventional land uses as a problem which “separate[s] old from young, home from store, rich from poor, and owner from renter” (Brown and Cooper 2001, 402). Even before New Urbanism came to the forefront, critics of suburbia argued that the mixing of diverse uses creates vibrant and successful neighborhoods (Grant 2002, 72).

The critics of New Urbanism do not see it “as a potential remedy for decades of inadequately planned suburbanization” (Cunningham 2005, 111). In fact, detractors believe that it cannot possibly do all that it says it can (Cunningham 2005, 115). One argument is “that the ‘big box’ architectural style of major merchant chains (Wal-Mart, Target) and factories will never fit in to New Urbanist design” (Cunningham 2005, 115). They see no room for these chain and factories in the midst of a place where “public spaces and retail [are] within walking distance and have sidewalks and street trees, well-connected street networks, and narrow streets with alleys for automobile storage” (Patterson 2004, 45).

Critics also argue that developers and planners of New Urbanist communities “...will always have a number of difficulties to overcome with zoning laws and local safety codes, and that the forecasted reductions in traffic congestion have yet to prove themselves empirically” (Cunningham 2005, 111). Today’s zoning laws and planning codes are not accommodating to the New Urbanism model (El Nasser 2005). For example, some of our zoning laws created

because of tuberculosis in the 19th century made high density building illegal (Jackson 2003, 1382). New Urbanist planning also faces difficulty in that most zoning laws go directly against any environmental laws because they force the builder to build larger and more spread out homes that will take over more of our country's undeveloped land and resources (McElhenny 2003).

New Urbanism in Public Policy

Although New Urbanism came to the public eye nearly 30 years ago, it has only truly influenced one government program. “[S]ince 1993, the U.S. Department of Housing and Urban Development (HUD) has employed the principles of the New Urbanism in HOPE VI, a major grant program (funded by mixed public/private financing) dedicated to refurbishing or demolishing then rebuilding areas with severely ‘distressed’ public housing” (Cunningham 2005, 121). The specific parts of HOPE VI that have shown to be the cornerstones of the program are:

- Changing the physical shape of public housing
- Establishing positive incentives for resident self-sufficiency and comprehensive services that empower residents
- Lessening concentrations of poverty by placing public housing in nonpoverty neighborhoods and promoting mixed-income communities
- Forging partnerships with other agencies, local governments, nonprofit organizations, and private businesses to leverage support and resources (HUD 2010)

“According to Roma Campanielle, HUD’s Architecture Specialist for HOPE VI...HOPE VI implements many neo-traditionalist principles: the restoration of a traditional, easily navigated street pattern; the use of architecture in scale and historical context with the local neighborhoods; and the commitment to creating mixed-income, mixed-use communities” (Cunningham 2005, 122). HOPE VI provides its users the opportunity to live somewhere other than an impoverished, ghettoized neighborhood (Cunningham 2005, 122).

Since the inception of HOPE VI, other developments have also occurred. “Principles of the New Urbanism got a significant boost when Henry Cisneros, former secretary of the US Department of Housing and Urban Development, signed the Charter of New Urbanism in May 1996” (Garde 2006, 34). Even more recently, the Congress for the New Urbanism has helped develop clear goals for smart growth and several state and local governments are using these ideas (Garde 2006, 34). The Congress for the New Urbanism’s aide to the federal government will help clearly define what is and is not a New Urbanism community.

Defining Characteristics of New Urbanism

New Urbanism can have multiple characteristics and definitions. How can one distinguish a traditional neighborhood from one that is neo-traditional? A set of standards or elements have to exist to fully exemplify New Urbanism. “New Urbanism,” according to Hollie Lund (2003, 414), “calls for a combination of neighborhood design elements. As outlined in the charter of the Congress for the New Urbanism, these elements consist of:

- compact, walkable neighborhoods with clearly defined edges;
- a clearly defined center with public space, public buildings, a transit stop, and retail businesses;
- an interconnected street network, forming coherent blocks and lined with building fronts rather than parking lots;
- a diverse mix of activities and housing options;
- civic spaces in prominent places; and
- open spaces in convenient locations throughout the neighborhoods.

Different scholars, however, have placed different degrees of importance on each of these elements. Waugh (2004, 13) quotes Phillip Langdon “that the main elements needed for effective communities are ‘generously connected streets and sidewalks,’ neighborhoods with a mix of housing ‘sizes, prices, and types’ and neighborhoods laid out in such a way that residents

can walk, in a few minutes, to ‘parks, stores, services, and other amenities of daily life’”.

Barbara Brown and Vivian Cooper (2001, 403) suggest that the use of the land is the central element of New Urbanism along with its accessibility to people, and how close buildings are to one another. For another, “the central New Urbanism characteristics are, ‘mixed-use, mixed-income housing, identifiable community centers, quality urban design, and walkable and connected street systems” (Grant 2008, 109).

From all the different characteristics specified for New Urbanism, six are mentioned repeatedly. They are density, mixed use, mixed type, transportation choice, architectural type, and diversity.

Density

“Cities have stood out from the surrounding countryside as places of intense human settlement since ancient times. Density defines the city, as does industry-work for people to do and markets where people spend their earnings” (Gurin 2003, 3). What is meant by density? “Unfortunately, there is no standard definition...density, and its calculation varies across jurisdictions, making comparisons treacherous...[D]ensity always includes building sites, local streets, neighborhood parks, and school sites” (Gordon and Vipond 2005, 45). Jane Jacobs (1961, 205) notes that one should not look at density as overcrowding, but as a better use of land. When builders utilize the natural landscape and resources appropriately, they have the ability to construct residential and other buildings in closer proximity to each other without falling into the stigmas attached to high density areas.

Many argue that despite supporting higher density neighborhoods, New Urbanists have created a new type of sprawl. “The Charter of the New Urbanism...supports compact,

pedestrian-friendly, and mixed-use neighborhoods, but there is no specific discussion of increasing density. As a result, some observers have dismissed New Urbanism as simply another form of sprawl” (Gordon and Vipond 2005, 41) Another reason for this belief is that “progressives within the architectural and planning communities...feel [New Urbanism] concentrates too much on new development, making it pro and not anti-sprawl”(Anaruk 2008).

Regardless of whether it is a new form of sprawl or not, New Urbanism does offer an alternative to the conventional definition of sprawl. Unfortunately, current zoning and building laws frustrate the work of New Urbanism. For example, in Massachusetts “[h]ome builders say they’re being forced to build on larger lots by communities trying to slow development through zoning regulations” (McElhenny 2003). Most current zoning laws require wide streets, large lots, and deep setbacks within a suburban community (O’Neil 2002, 10). New Urbanism can exist where zoning and planning laws are more open.

Where density is viable, how many dwelling units per acre (du/acre) should be in a New Urban community? It has been suggested that the vitality of a neighborhood drastically drops if the density goes below 100 du/acre (Jacobs 1961, 205). “Calthrope suggests seven units per net acre be considered a minimum density” (Brown and Cooper 2001, 403) for a New Urban community. Conventional suburban communities typically have, at a bare minimum, a quarter acre housing lot and consistently have larger housing tracks (Waugh 2004, 15). “Zoning that requires a minimum lot size of two acres or more contributes to a dispersed and inefficient pattern of growth in metropolitan regions and thus, far from protecting the environment, adds to its degradation” (O’Neil 2002, 17). In order to achieve higher dwelling units per acre, the

development will “require a mix of multi-family and single-family housing types” (O’Neil 2002, 17).

New Urbanists argue that density helps protect the environment and provides residents choices they actually desire. The Urban Land Institute, for example, asserts that infill projects give developers an alternate solution to developing on the “urban fringe”, which protects open land (O’Neil 2002, 7). New Urbanism “projects offer better design, better compatibility with growth management regulations, and minimize deterioration of environmental quality” with their “compact layout, higher-density and pedestrian-oriented designs” listed as the chief reasons (Garde 2006, 50).

The author could find no literature concerning demographics and the New Urban characteristic of density. However, the literature does show that there are two major types of communities (typical suburban and New Urban) with competing characteristics (high density and low density). The literature does not point out why one community is chosen above the other. Demographics may be a contributing factor in this decision. In other words:

H₁ : Attitudes towards density will be affected by demographics.

Mixed Uses and Mixed Types

“Imagine a place where people walk to shops and services...and play in large open parks with water courses, wetlands, and lakes. The people in this world would live in ‘compact’ residential settings in single family homes with as little as 30 feet of street frontage, in townhomes, rowhouses, condominiums, and in garden apartments” (Shibley 1998, 80). This is a description of a typical New Urban community. Two central characteristics of New Urbanism are the mixing of land uses and types.

New Urbanists believe that although mixed land use is hard to achieve, it is needed to create an authentic community (Brown and Cooper 2001, 404). Jill Grant provides three components of mixing land uses in a New Urbanism community (Grant 2002, 73). The three components are intensity, diversity, and integration of segregated uses (Grant 2002, 73).

The first component, land use intensity, means that neighborhoods should have a combination of all types of housing and people within it. Increasing the intensity of land uses means more than just mixing types of housing and populations. “If we believe that households choose housing types based on life-cycle stage or income level, then we could argue that mixing types of housing brings different households together” (Grant 2002, 73). Mixing single family dwellings with multi-family dwellings would be an example of merging different life-cycles and income levels.

The second conceptual level, increasing the diversity of uses, adds further diversity to a New Urban community. Increasing the diversity of land use means to “[add] high density residential uses to commercial and office districts...because residents who live near businesses may patronize or work in those businesses” (Grant 2002, 73). A study of forty-two Canadian New Urban communities showed that “most communities included open space, institutional and commercial uses. Three communities had two or fewer non-residential uses, but most had three or more other uses. Industrial uses proved rare in the new urbanism communities documented” (Grant and Bohdanow 2008, 116). Unlike single-use zoning where housing, business “parks” and shopping centers are separated, New Urbanism focuses on “marrying” all different districts together through mixed land and type uses (Duany and Talen 2002, 256).

Even with the mixing of residential and commercial uses together in a neighborhood, New Urbanist communities still struggle with residents not having all the shopping and dining variety that they need. “Local developments generally contain retail shops, but rarely are they on the scale of a Wal-Mart, Costco, or Home Depot. There are anecdotal stories of New Urbanist residents getting milk and eggs locally, or patronizing local stores to some extent, but still using a megastore for better prices or a more distant mall to find greater retail store variety” (Sander 2002, 213). Even with these concerns, New Urbanism can still provide more variety than a traditional suburban community.

The last conceptual level for mixing land-uses is the integration of segregated uses. This means that land uses that are usually not placed together are integrated in a neighborhood. An example of this would be mixing chemical plants or other heavy industry in a residential area. As the study in the above paragraph mentioned, mixed residential and commercial areas are rare and the mixing of industrial and residential is the rarest of all (Grant and Bohdanow 2008, 116). The reason for this rarity is easily seen as there are obvious health and safety concerns associated with an industrial use area. Jill Grant (2002, 73) encourages using the word ‘compatible’ when looking at integrating segregated uses. Industrial uses can only be integrated if it fits the need of the community and does not distract or harm the population.

Mixing land-uses does not just include building structures; it also includes parks, squares and lakes. Unfortunately, as previously mentioned, mixing these items into neighborhoods can cause opposition. This type of opposition is called “NIMBYism” (Not-In-My-Backyard) (Grant 2002, 73). Starting in the 1980s, neighborhood associations started blocking parks, lakes, and squares (Grant 2002, 73). Residents sometimes see these additions as either useless,

incompatible, or something that may cause a higher density within the neighborhood (Grant, 2002, 73). Todd Bressi (1994, xxv) sees parks, squares and lakes as something different. He states that, “[p]ublic spaces like...squares and parks should be a setting for the conduct of daily life”. He also points out, “[t]hese places should not be relegated to leftover sites at the edge of neighborhoods, and their form and image should be strengthened by surrounding building form, architecture and street patterns” (Bressi 1994, xxv).

Mixing of land-uses is a characteristic of a New Urban community. As the literature points out, conventionally planned communities do not mix land-use. The literature does not provide why a community with mixed land-use is chosen above one without mixed land-use and vice versa. The reason why a particular community is chosen could be a result of demographics’ attitude towards mixed land-use. In other words:

H₂: Attitudes towards mixed land-use will be affected by demographics.

As previously mentioned, mixing building types is also a central characteristic of New Urbanism. Having multiple types of residential structures in a neighborhood will have different effects on that neighborhood. For instance, the neighborhood will be more vibrant, colorful, and fluid (Langdon 1994, 166). The mixing of home types will make it easier for different types of people to live in the same neighborhood (EPA 2010).

The design of a New Urban neighborhood can include garden apartments, condos and townhomes. One structure that is often mentioned in the literature is the ancillary unit (or granny flat). This type of apartment creates a residential dwelling unit on the primary structure and has the potential of increasing the number of dwellings unit per acre (du/acre) (Brown and Cooper 2001, 404; Calthrope 1993, 83). New Urbanism hopes to create a stronger “sense of

community” in neighborhoods by providing renters an opportunity to live alongside home owners (Brown and Cooper 2001, 402).

Having “diverse uses creates vibrant and successful neighborhoods” (Grant 2002, 72) and provides its residents with a “sense of community” (Brown and Cooper 2001, 402). These are not the only positive results of mixed building types. Other benefits of New Urban communities may include:

- Mixing land-use creates an urban environment active at all hours, making optimum use of infrastructure.
- Smaller, post-baby-boom households can have a greater range of options (rather than just detached homes).
- Mixing housing types could increase affordability and equity by reducing the premium that exclusive, segregated areas enjoy.
- By providing housing near commercial and civic activities, planners could reduce the dependence of the elderly and children on cars.
- Enabling people to live near places where they can shop, work, or play could reduce car ownership and vehicle trips, increase pedestrian and transit use, thus alleviate the environmental consequences associated with automobile use (Brown and Cooper 2001, 402).

All these benefits lead New Urban designers to build mixed land use and mixed building type neighborhoods.

As with mixed land-use and density, there is no literature discussing attitudes towards mixed type and demographics. Since there are communities with and without the characteristic of mixed type, it can be concluded that something motivates people to choose a particular community above the other. Demographics may be that motivation. In other words:

H₃: Attitudes towards mixed type will be affected by demographics.

Transportation Choices

Every New Urban development has at least one common goal and that is to reduce the use of automobiles (Crane 1996, 53). “This is to be accomplished,” Crane states, “by reducing the surface street distance between locations, mixed land uses, and supporting alternative transportation modes such as walking, bicycling, and transit...Neo-traditional designs thus often feature elements...which make efficient use of neighborhood streets and improve overall neighborhood access” (Crane 1996, 53).

New Urbanists planning uses the best design principles to make neighborhoods walkable for its residents (Cunningham 2005, 114). The most basic design for streets and sidewalks in a New Urban development are streets with “grid or modified grid layouts” (Grant and Bohdanow 2008, 117). Conventionally planned neighborhoods do not follow these same design principles. The grid system provides New Urban communities the ability to be pedestrian-friendly as well as a healthy alternative to the conventionally planned neighborhoods that are not created with the pedestrian in mind. The typical American building philosophy has “impacted obesity, cardiovascular disease, diabetes, asthma, injury, depression, violence, and social inequalities” negatively because of the lack of sidewalks and grids (Jackson 2003, 1382).

The lack of sidewalks and grids (or modified grids) in conventionally planned communities have made it less likely for residents to “walk long distances” (Ewing, Schmid, Killingsworth, Zolt, and Raudenbush 2003, 48). “Poor accessibility is the common denominator of urban sprawl-nothing is within easy walking distance of anything else” (Ewing et al. 2003, 48). In a study performed between 1998 and 2000, it was found that “sprawl appears to have direct relationships to BMI and obesity, plus indirect relationships through the number of

minutes walked...” (Ewing et al. 2003, 48). One study, comparing the physical activity of residents in two neighborhoods, found that “total physical activity measured using accelerometers was over 50%

higher in a highly walkable (but not new urban)

neighborhood as compared to a less walkable neighborhood of similar density” (Rodriguez, Khattak, and Evenson 2006, 44). Although there is no study showing a correlation between

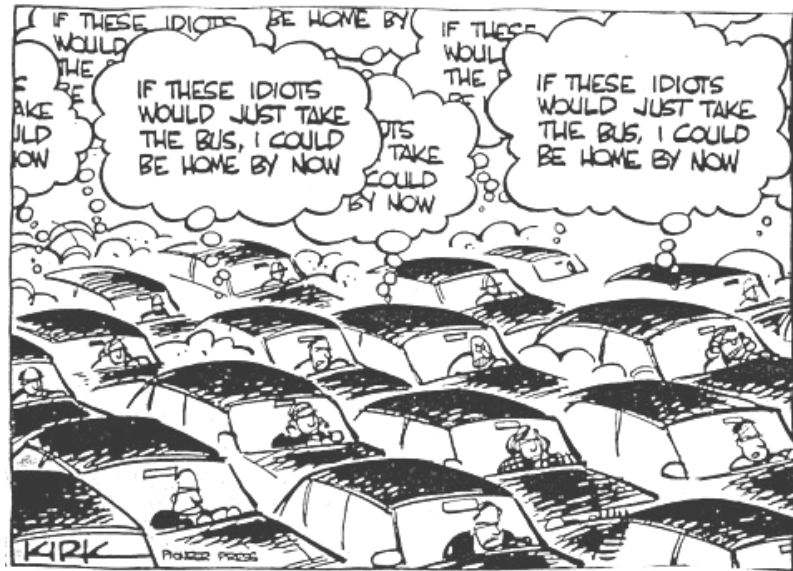


Image 2.3 Traffic Jam (insidesocal.com, 2007)

weight loss and New Urbanism, it can be shown that “[w]alking for utilitarian purposes is consistently found to be more prevalent in dense, mixed-use neighborhoods when compared to lower density, exclusively residential neighborhoods” (Rodriguez, et al. 2006, 48).

Typical communities usually do not have the budget to create safe biking or walking alternatives (Goldberg 2004). They also do not have the ability to provide adequate public transportation. “A dilemma for urban designers is to find ways to reintroduce a strong sense of integration between developments without giving up the positive attributes of the newer street patterns: quiet, safe streets for children, privacy, and the potential for landscape-sensitive street layouts” (Southworth 1993, 5). Residents in a dense urban community drive less because they either have almost everything they need within their neighborhood or they have alternate public transportation, bikes, etc. (O’Neil 2002, 13). A study in 2003 “supports the New Urbanist claim

that local access contributes to increased levels of pedestrian travel...Residents do appear to be...walking to...their local shopping area, if there is one (Lund 2003, 426).

“Concentrated development makes feasible various transportation alternatives to the car, including walking, biking, and mass transit. As a result, people living in compact communities tend to rely less on the automobile. In fact, doubling the residential density of land can result in a 10 to 15 percent decrease in per capita driving miles” (O’Neil 2002, 13). According to the Texas Transportation Board, congestion is becoming a major problem in all metropolitan areas (O’Neil 2002, 15). Alternatives that a New Urban community can bring to congested metropolitan area and its population are, walking, mass transit, biking, and driving fewer miles. For example, Austin, Texas, which has seen a constant 3.5% growth rate for the past 100 years, has “gravitated toward New Urbanism as a development model” (Charter for the New Urbanism 2007).

New Urbanism still has its share of problems. Neo-traditional neighborhoods still have problems with residents’ extensive use of automobiles (Brown and Cooper 2001, 414). Often, “funneling residents quickly from one place to another” concerns the local governments more “than...limit[ing] the amount of vehicles on the road” (Duany and Plater-Zyberk 1994, xix). It should be noted that “all congestion is not equal. San Francisco and Paris have congestion, but the streets are alive, the quality of life is high, and alternatives to driving are plentiful” (Duany and Plater-Zyberk 1994, xix). As with the examples of Paris and San Francisco, “New Urbanism will not [be able to] abolish [all] traffic congestion” (Duany and Plater-Zyberk 1994, xix) even if the community is utilizing all its alternatives.

The goal of New Urbanism is to provide its residents alternatives to automobiles.

“These alternatives include walking, bicycling, and the use of public transit” (Waugh 2004, 26).

“Central to the tenets of new urbanism is an attempt to recreate the traditional form of small towns and streetcar suburbs, which were pedestrian friendly because amenities such as public spaces and retail were within walking distance and had sidewalks and street trees, well-connected street networks, and narrow streets with alleys for automobile storage” (Patterson and Chapman 2004, 45).

Unlike New Urban neighborhoods, conventionally planned communities do not promote transportation choices. As the literature has pointed out, typical neighborhoods are limited to automobiles as the chief mode of transportation. The literature does not provide an explanation about why a community with or without transportation variety is chosen. Demographics’ attitudes towards transportation choices may be a factor. The following hypothesis reflects this possible factor:

H₄: Attitudes towards transportation choices will be affected by demographics.



Image 2.4 New Urban Architecture (newhomeguide.com, 2010)

Architectural Style

“Urban design has a long tradition of borrowing from the past, one that continues today as ‘neo-traditional’ designers look nostalgically back to the small American town as an alternative to conventional suburban development” (Southworth 1997,

28). Bressi (1994, xxx) states that “[b]uildings should not be conceived as objects isolated from their surroundings; they should contribute to the spatial definition of streets, parks, greens, yards,

and other open spaces”. New Urbanism communities, however, have features that are not standard in the conventionally planned community. Neo-traditional buildings vary in look and design (Waugh 2004, 27), but their “designs [should] entice people outdoors” and residential buildings should have front porches to create social interaction (Brown and Cooper 2001, 406). The major architectural “design features smaller lot sizes, reduced setbacks, houses that emphasize the porch instead of the garage” (Forman 2009, 9).

Some critics have claimed that the new urban design of front porches, large windows facing the street (Waugh 2004, 27), and a back alley for automobile storage looks “ ‘fake’ or seem too ‘deliberately nostalgic’ ” (Cunningham 2005, 118). Others have even compared New Urban communities to Main Street USA at Disneyland (Cunningham 2005, 118). “Without a doubt,” Cunningham states, “New Urbanism and Disney’s [architecture] share a number of common goals: Both seek to modify behavior and feeling through design” (Cunningham 2005, 118). Both forms of New Urbanism take human behavior into account with their architecture (Waugh 2004, 26). Although architecture cannot be a “determin[ant] of human behavior”, it can “encourage certain behaviors” (Waugh 2004, 26).

Two major issues neo-traditional communities face are making sure that the architecture is well done and that the community is marketable. “In some suburbs, New Urbanism means little more than gingerbread trim and front porches. Stripped to a few essentials, the concept is [more like] a marketing ploy for placing narrow houses on small lots” (Grant 2002, 78). Residential buildings should be functional and aesthetically pleasing (Waugh 2004, 27).

“Gopal Ahluwalia, economist at the National Association of Home Builders, stated [w]hile new urban communities look good and have some wonderful features, they’re more

popular with architects and designers than they are with potential buyers” (Johnson 2005).

Although the design is to create more social interaction, residents in some of the oldest New Urban communities have “retrofitted” their homes with back porches and large hedge rows to more fully isolate themselves and increase “privacy” (Sander 2002, 216). Grant (2002, 77) explains that New Urban residences are good starter homes, but moving up usually means going to a more conventional place.

What causes some to value architectural style in their community and others to not consider it? As with the other characteristics of New Urbanism, the author could find no literature that discussed architectural style and peoples’ attitude towards it. Demographics may be a mitigating reason for preference of architectural style within their community. In other words:

H₅: Attitudes towards architectural style will be affected by demographics.

Diversity

The final major characteristic of New Urbanism is diversity. A New Urbanist community will have diverse people and activities (Bressi 1994, xxv). It should also have a mixture of people from different income levels and from different age groups (Waugh 2004, 28). “New urbanists decry the segregation of ‘land uses which separate old from young...rich from poor, and owner from renter’” (Brown and Cooper 2001, 404) and thus, they strive to have a mixture of people in their communities.

What affects people’s attitude towards the characteristic of diversity? As with the other five characteristics of New Urbanism, the literature does not provide an answer. Demographics

may be an explanation for why people value a particular characteristic. The following hypothesis reflects this possible explanation:

H₆: Attitudes towards diversity will be affected by demographics.

Summary of Conceptual Framework

Review of literature shows that there are six major characteristics of New Urbanism. These characteristics are: population density, mixed land uses, mixed type uses, transportation options, architectural style and diversity among its residents. This preliminary research is exploring the attitudes of various demographic groups towards these characteristics. The examined demographics are age, race, income levels and gender.

Literature on New Urbanism is silent about the attitudes of various demographic groups toward characteristics of these communities. At times, literature does make reference to the issues of New Urbanism and demographics, but no study has examined the relationship between them. El Nasser (2005) maintains that Latinos (who are the largest minority in the United States) like to live close to shopping, businesses, and mass transit. These attitudes are all characteristics of New Urbanism. However, Henry Cisneros has pointed out that New Urbanism has only targeted whites with high incomes (El Nasser 2005). It is true that “ ‘many of the early New Urban communities ha[d] actually been targeted to high-income homebuyers, leading to charges that New Urbanism is elitist in nature...The whiteness of certain New Urbanist suburban communities should not, however, reflect on the ideals of New Urbanism as a whole” (Cunningham 2005, 117). Although it can be shown that New Urban communities are at times geared to higher income whites, it is not shown what characteristics of their community

they like or dislike. It is also not clear what characteristics of the New Urbanism are liked or disliked by lower-income whites or higher income minorities.

This preliminary research will explore which New Urbanism characteristics particular demographics value. Each one of the hypotheses summarized in Table 2.1 suggests what each demographics attitude is concerning the major components of New Urbanism. As there is no research on the attitudes of various demographic groups towards the elements of New Urbanism, the author has used his own general observations to create the hypotheses. All five demographics are represented in each of the six hypotheses.

Table 2.1: Conceptual Framework

Hypothesis	Literature
<p>Density (H₁) Attitudes towards density will be affected by demographics.</p>	<p>(Gordon and Vipond, 2005) (Jacobs, 1961) (Brown and Cooper, 2001) (Waugh, 2004) (O’Neill, 2002) (Garde, 2006)</p>
<p>Mixed-Land Use (H₂) Attitudes towards mixed land-use will be affected by demographics.</p>	<p>(Shibley, 1998) (Brown and Cooper, 2001) (Grant, 2002) (Grant and Bohdanow, 2008) (Duany and Talen, 2002) (Bressi, 1994)</p>
<p>Mixed Housing Types (H₃) Attitudes towards mixed housing types will be affected by demographics.</p>	<p>(Langdon, 1994) (EPA, 2010) (Brown and Cooper, 2001) (Grant, 2002)</p>
<p>Transportation (H₄) Attitudes towards transportation choices will be affected by demographics.</p>	<p>(Crane, 1996) (Cunningham, 2005) (Grant and Bohdanow, 2008) (Jackson, 2003) (Ewing, <i>et al</i>, 2003) (Rodriguez, Khattak, and Evenson, 2006) (O’Neill, 2002) (Lund, 2003) (Waugh, 2004) (Patterson and Chapman, 2004)</p>
<p>Architectural Style (H₅) Attitudes towards architectural style will be affected by demographics.</p>	<p>(Southworth, 1997) (Bressi, 1994) (Waugh, 2004) (Brown and Cooper, 2001) (Foreman, 2009) (Cunningham, 2005)</p>
<p>Diversity (H₆) Attitudes towards diversity will be affected by demographics.</p>	<p>(Bressi, 1994) (Waugh, 2004) (Brown and Cooper, 2001)</p>

Conclusion

The review of New Urbanism literature identifies six major characteristics of nontraditional communities. The six characteristics include: diversity, mixed land use, mixed type use, transportation, architectural style, and diversity. The literature defined each characteristic and indicated how they are to be used in a New Urban community. The literature also points out the pros and cons of these characteristics. However, the research was not clear concerning why a characteristic is valued. The literature does show that there are two major types of communities (conventional and New Urban) and that people do live in both, although there is no discussion as to why. The author hypothesizes that this preference in community is a matter of attitude towards a particular characteristic of New Urbanism.

Chapter III: Methodology

Introduction

The purpose of this study is to evaluate attitudes of various demographic groups towards characteristics of New Urbanism. The study examines attitudes toward the six characteristics of a New Urban community. These are: density, mixed-land uses, mixed housing types, transportation, architectural style, and diversity. This research attempts to determine if there are differences of opinion among various demographic groups about the characteristics of New Urban planning. Several demographics, such as age, race, gender, annual income, and child status, are examined as possible factors when choosing a traditional or New Urban community.

The purpose of this chapter is to explain how the preliminary research measures demographics' attitudes towards characteristics of New Urbanism. This chapter describes how each hypothesis is tested. The six hypotheses are operationalized using a survey questionnaire, with five specific hypotheses representing the five demographics per dependent variable. As there is an absence of literature on the direction of relationships between the demographic variables of this study and the characteristics of New Urbanism, this author has used his own judgment, based on many years of housing experience, in predicting the direction of the relationships of the specific hypotheses. Table 3.1 presents the survey questions that measure attitudes towards each characteristic of New Urbanism. Listed below are the examined hypotheses:

H₁: Attitudes towards density will be affected by demographics.

H_{1a}: Younger people are more likely to value a compact urban form than older people.

H_{1b}: There is no difference in the preference of the male and female population regarding compact urban form.

- H_{1c}:** People of a lower income level are more likely to value a compact urban form than people of a higher income level.
- H_{1d}:** Minorities are more likely to value a compact urban form than whites.
- H_{1e}:** People without children are more likely to value a compact urban form than people with children.

H₂: Attitudes towards mixed-use will be affected by demographics.

- H_{2a}:** Younger people are more likely to value the mixing of land-uses than older people.
- H_{2b}:** Males are more likely to value the mixing of land-uses than Females.
- H_{2c}:** People of a lower income level are more likely to value the mixing of land-uses than people of a higher income level.
- H_{2d}:** Minorities are more likely to value the mixing of land-uses than whites.
- H_{2e}:** People without children are more likely to value the mixing of land-uses than people with children.

H₃: Attitudes towards mixed type will be affected by demographics.

- H_{3a}:** Younger people are more likely to value the mixing of housing types within the neighborhood than older people.
- H_{3b}:** Males are more likely to value the mixing of housing types within the neighborhood than females.
- H_{3c}:** People of a lower income level are more likely to value the mixing of housing types within the neighborhood than people of a higher income level.
- H_{3d}:** Minorities are more likely to value the mixing of housing types within the neighborhood than whites.
- H_{3e}:** People without children are more likely to value the mixing of housing types within the neighborhood than people with children.

H₄: Attitudes towards transportation choices will be affected by demographics.

- H_{4a}:** Younger people are more likely to value transportation choices than would older people.
- H_{4b}:** There is no difference in the preference of the male and female population regarding transportation choices.
- H_{4c}:** People of a lower income level are more likely to value transportation choices than would people of a higher income level.
- H_{4d}:** There is no difference in the preference of race regarding transportation choices.
- H_{4e}:** There is no difference in the preference of child status regarding transportation choices.

H₅: Attitudes towards architectural style will be affected by demographics.

- H_{5a}:** Older people are more likely to value traditional architectural elements than would younger people.
- H_{5b}:** There is no difference in the preference of the male and female population regarding architectural elements.
- H_{5c}:** People of a higher income level are more likely to value traditional architectural elements than would lower income level.

- H_{5d}:** White people are more likely to value traditional architectural elements than minorities.
- H_{5e}:** People with children are more likely to value traditional architectural elements than people without.

H₆: Attitudes towards diversity will be affected by demographics.

- H_{6a}:** Younger People are more likely to value diversity among neighborhood residents than older people.
- H_{6b}:** Males are more likely to value diversity among neighborhood residents than females.
- H_{6c}:** People of a lower income level are more likely to value diversity among neighborhood residents than people in higher income levels.
- H_{6d}:** Minorities are more likely to value diversity among neighborhood residents than whites.
- H_{6e}:** There is no difference in the preference of child status regarding diversity.

Research Technique

The operationalization of the conceptual framework is shown in Table 3.1 by merging the hypothesis and the dependent variable with the selected group of questions from the questionnaire. For this study, the dependent variables are the six characteristics of New Urbanism. The independent variables are the five demographics being measured. Survey questions are categorized according to which dependent variable they represent. Each dependent variable has one hypothesis associated with it.

For this preliminary study, the research method selected is survey research. The questions created for the questionnaire were developed from a survey created by Dave Waugh in his research on the characteristics of New Urbanism. Survey questions were created for each of the main New Urban characteristics (density, mixed use, mixed type, transportation, architectural, and diversity) as well as questions regarding the participants demographics (gender, race, economical status, age, and child status). Appendix 1 contains the questionnaire used for this study.

Non-demographic questions are measured on a 5-point Likert scale where 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, and 5 = strongly disagree. Questions 12 and 24 will be negatively worded and the results will be reversed before the analyses. Each dependent variable is measured by averaging a set of related questions. For example, the average of answers to questions 3, 4, and 5 are used as a measure of 'density'. Earl Babbie states that the "Likert scale...calculates the average index score for those agreeing with each of the individual statements...then assigned an overall score representing the summation of the scores" (2001, 167). The questions asking about the participants' demographics will be used to determine if there are differences of opinion among the various demographic groups about the characteristics of New Urbanism for this study. Three of the independent variables are in the form of dummy. The other two, age and income, are ratio variables. Table 3.1 illustrates the measurements for both the dependent and independent variable.

Table 3.1: Operationalization of Conceptual Framework

Variables	Measurement
<p><i>Dependent Variables:</i></p> <p>Density</p> <p>Mixed-Use</p> <p>Mixed Type</p> <p>Transportation Choices</p> <p>Architectural Style</p> <p>Diversity</p>	<p><i>Average of the questions:</i></p> <p>Questions 3 – 5</p> <p>Questions 6 – 12</p> <p>Questions 13 – 15</p> <p>Questions 16 – 23</p> <p>Questions 24 – 25</p> <p>Questions 1 – 2</p> <p>All questions are measured on a 5-point Likert scale (1=Strog. Agree. . . .5=Strog. Disagree)</p>
<p><i>Independent Variables:</i></p> <p>Age</p> <p>Race</p> <p>Gender</p> <p>Income Level</p> <p>Child Status</p>	<p>Years old</p> <p>0 = White, 1 = Minority</p> <p>0 = Male, 1 = Female</p> <p>Annual Income In \$1000s</p> <p>0 = With children, 1 = Without Children</p>

Survey Design and Method

The survey used to gather the information for this exploratory research was created using the online service, *Survey Monkey*. The survey was conducted through the online social network, *Facebook*. A link to the survey was placed on the researcher’s status bar so all who are “friends” with the researcher can see the link and take the survey. “Friends” of the researcher who represented the targeted demographics were specifically asked to place the link to the survey on their status bars as well. If they said yes, then they were instructed to take the survey themselves and then place the link on their status bars for a week. Individuals, such as a 27 year old Hispanic male making \$50,000/annually with three children, were asked to place the link

onto their status bar and leave it for a week. These “friends” were asked to invite their “friends” to do the same. Additional “friends” of the researcher placed the link to the survey on their status bars without invitation of the researcher. The link was active for a week while the data was being collected.

The sampling method used for this preliminary research is called nonprobability sampling. Babbie defines this as “any technique in which samples are selected in some way not suggested by probability theory (random selection)” (2001, G7). Specifically, the particular method used is known as snowball sampling. Snowball sampling is “a nonprobability sampling method often employed in field research whereby each person interviewed may be asked to suggest additional people for interviewing” (Babbie, 2001, G10). Snowball sampling is a non-scientific method and should only be used for exploratory purposes (Babbie, 2001, 180). For this preliminary research, a nonprobability sampling method was used to determine if a larger, more scientific sampling method should be conducted. Additional weaknesses will be examined.

Procedures

Once the data is received, the results are loaded into the Statistical Package for the Social Sciences (SPSS) from a spreadsheet of the results found in *Survey Monkey*. This exploratory study uses a combination of descriptive statistics and multiple regression to determine if there are differences of opinion among the selected demographics about the characteristics of New Urbanism. Since six New Urban characteristics are used as dependent variables, six separate multiple regressions are run. Once completed, the results are reviewed for possible relationships. The results of these analyses are discussed in Chapter four.

Sample Size

The returns from participants of this exploratory survey totaled 363. Table 3.2 presents the demographic characteristics of the participants. Three questions, race, income, and age were open response questions. For race, any answer that did not indicate white or Caucasian was coded non-white. The returns for race are the best representation for the current percentages within the United States. According to the Census Bureau, the number of white persons in the United States in 2009 was 65.1% and non-whites were at 36.2%. These numbers are similar to the sample size for this preliminary research. A total of 8 participants did not respond to the question concerning their annual income and 6 subjects did not reply to the question asking their age. Table 3.2 presents the participants gender, race, and child status along with their average age and average annual income.

Table 3.2: Survey Demographics

Variable	n (%)	Average Income	Average Age
<i>Gender</i>	358	\$68,993	39
Male	147 (41%)	\$68,537	39
Female	211 (59%)	\$69,307	39
<i>Race</i>	357	\$69,144	39
White	210 (59%)	\$75,565	41
Non-White	147 (41%)	\$55,805	37
<i>Child Status</i>	363	\$68,993	39
With Children	255 (70%)	\$75,540	42
Without Children	108 (30%)	\$53,635	32

Weaknesses

Using a social network to conduct research that relies on having a range of demographics to participate should not be used to generalize a larger population. There is no way to know if the participants will be as varied. For example, there is a possibility that the majority of the participants would be of similar age, race, income level, and child status. Although this

particular research had participants varying in age, annual income, gender, and race, the results cannot be used to generalize to the larger population. This is because the sampling procedure used “results in samples with questionable representativeness” (Babbie, 2001, 180).

Another weakness is that the only demographic being surveyed for this research are individuals with a *Facebook* account. There could be a difference of opinion between *Facebook* account holders and those without a *Facebook* account. Additional research would need to be done to determine if there is such a difference or if social networks can provide an accurate sample for a particular demographic. Current thought is that social networks do not represent a larger population.

A third weakness for this exploratory research was the use of others in sharing the survey link with their “friends”. If the link was not shared, then the demographics would be limited to only the researchers “friends”. For this preliminary research, the link was shared by not only the requested participants, but by other participants as well. The requested participants informed the researcher that the link was shared by not only themselves, but by others on *Facebook* as well.

The greatest weakness in this preliminary research is that it does not represent any meaningful population (Babbie, 1990, 97). No inferences can be made concerning the larger population by looking at the results of this exploratory research. The results of this introductory research should only be used to uncover any defects in the survey and if the subject should be evaluated further (Babbie, 1990, 97).

Human Subject Protection

Federal law requires all educational institutions to have an Institutional Research Board (IRB). This board reviews proposed research with the goal of protecting the rights and welfare

of human subjects. If the research follows federal guidelines for human subject research, the IRB will provide the research an approval number. This study has been exempt from full IRB review. The exemption number is EXP2010S1033. All participants of this study were allowed to discontinue participation if desired and all were anonymous. For those who may have discontinued participation, there was no penalty or loss of benefits. Participants under the age of 18 were not allowed to participate. If additional information is needed regarding this research or about human subject protection, please contact jared.gallini@gmail.com or Dr. Hassan Tajalli at tajalli@txstate.edu.

Chapter IV: Results

Introduction

The purpose of this chapter is to present and describe the findings of the statistical analysis discussed in Chapter Three. Six multiple regressions were completed to test the hypotheses of this study. The six dependent variables of this study are density, mixed-use, mixed type, transportation choices, architectural style, and diversity. Each dependent variable was tested against five demographic variables. The five independent variables are gender, race, annual income, age, and child status. The purpose of the regression analyses is to show which independent variables influence attitudes toward the characteristics of New Urbanism.

Table 4.1: Regression Analysis Results

Variables	Unstandardized Coefficients					
	Density	Mixed-Use	Mixed Type	Transportation	Architectural Type	Diversity
Age	-.006	.001	-.004	.001	.005	-.008**
Race	.178	.119	.113	-.017	.057	.001
Gender	.237*	.187*	.108	.032	.001	-.132
Annual Income [§]	.001	.001	.006**	.002**	-.003*	.003**
Child Status	-.173	-.180*	-.323**	-.122	.044	-.062
Constant	3.347**	2.147**	2.729**	2.108**	2.507**	3.002**
R-square	0.037	0.041	.097	0.038	.025	.047
F	2.702*	2.970*	7.516**	2.760*	1.785**	3.441**

* Significant at $\alpha < .05$

** Significant at $\alpha < .01$

§ In \$1000

Density

Table 4.1 illustrates the results of the regression analysis results for dependent variable of density. Controlling for race, gender, annual income, and child status the analysis showed that age does not influence a participant's value on the New Urban characteristic of density. Race has also been shown not to be a factor in a participant's preference of density when controlling for age, gender, annual income, and child status. It was also found that annual income does not impact attitude towards density when controlling for age, race, gender, and child status in this preliminary study. Likewise, when controlling for participants race, gender, age, and annual income, child status was found to have no impact on how density is valued. As a result of this exploratory research age, race, annual income, and child status do not affect attitudes of the survey participants toward urban density within their place of residence. In other words, hypotheses H_{1a}, H_{1c}, H_{1d}, and H_{1e} are not supported by the findings of this exploratory study.

The results do, however, show that gender is statistically significant when controlling for age, race, annual income and children in this preliminary study. The study shows that female participants have less favorable attitudes toward density than male participants do. The hypothesis H_{1b} is not supported in this preliminary research. Overall, demographics account for a little less than 4 percent of a participant's attitude towards the characteristic of density.

The equation for this dependent variable is: $\text{Density} = 3.347^{**} - .006 (\text{age}) + .178 (\text{race}) + .237^* (\text{gender}) + .001 (\text{annual income}) - .173 (\text{child status})$.

Mixed-Use Neighborhoods

Three variables in this preliminary research, age, race, and annual income are statistically insignificant for the New Urbanism characteristic mixed-use. Thus, hypotheses H_{2a}, H_{2c}, and H_{1d}

are not supported. As Table 4.1 presents, female participants value mixed land-use less than male participants. The results of this exploratory research also indicate that subjects without children value mixed land-use more than participants with children. Thus, H_{2a} and H_{2e} are supported by this exploratory research. For this study, demographics are a little over 4 percent of the reason a participant values the New Urban characteristic of mixed land-use.

The equation for this dependent variable is: Mixed use = 2.147**+.001 (age) +.119 (race) +.187* (gender) +.001 (annual income) -.180* (child status).

Mixed Type

The results of this preliminary study find that annual income and child status have significant effect on the attitude of participants regarding mixed land and housing type. Survey participants of this survey with a lower annual income and participants without children are more likely to value mixed-type neighborhood. In other words, H_{3c} and H_{3e} are supported by the results.

The equation for this dependent variable is: Mixed type = 2.729**-.004 (age) +.113 (race) +.108 (gender) +.006** (annual income) -.323* (child status).

As table 4.1 indicates, participant's attitude towards mixed type is not affected by their age, gender, and race. Thus, H_{3a}, H_{3b}, and H_{3d} are not supported by this preliminary research. Demographics represent almost 10 percent of the reason a participant values the New Urban characteristic mixed type.

Transportation

The findings in Table 4.1 show that only annual income is an influence on attitudes of this study's participants towards transportation choices within their neighborhood. As a

participant's annual income increases, the less they will value transportation choices. The results of this preliminary research support hypothesis H_{4c}.

The analysis shows that when the impacts of other variables in the study (age, race, gender, and child status) are accounted for, only a participant's annual income plays a determining role. As table 4.1 indicates, all other independent variables are not significant. In other words, participants' attitude towards transportation is not affected by their age, race, gender, or child status and hypotheses H_{4b}, H_{4d}, and H_{4e} are supported by this exploratory research. H_{4a} is not supported by the results. The overall significance of transportation choices in this exploratory study is less than 4 percent. In other words, demographics account for less than 4 percent of the reason participants of this study value transportation choice.

The equation for this dependent variable is: Transportation choices = 2.108**+.001 (age) -.017 (race) +.032 (gender) +.002** (annual income) -.122 (child status).

Architectural Type

Architectural type has the lowest overall significance among the dependent variables. Demographics are less than three percent of the reason behind a participants' preference for architectural type. Table 4.1 shows the results for each independent variable. When controlling for race, age, gender, and child status, participants with higher incomes value architectural types more than those with a lower annual income. The results of this preliminary research support hypothesis H_{5c}.

Age, race, gender, and child status are statistically insignificant in this study when determining participants' attitudes towards this characteristic of New Urbanism. In other words,

the results indicate hypotheses H_{5a}, H_{5d}, and H_{5e} are not supported by this exploratory research. Hypothesis H_{5b} is supported by the results.

The equation for this dependent variable is: Architectural style = 2.507**+.005 (age) +.057 (race) +.001 (gender) --.003** (annual income) +.044 (child status).

Diversity

As the results in Table 4.1 indicate, as the age of the subjects of this study increased their acceptance of diversity also increased (after controlling for the possible impacts of race, gender, annual income, and child status). Hypothesis H_{6a} is not supported by the results. When controlling for age, race, gender, and child status, the findings indicate that the higher participants' income the less value is placed on diversity. H_{4c} is supported by the preliminary research.

The results of this study also indicate that race, gender, and child status have no impact on the attitude of participants toward diversity within their neighborhood. In other words, hypotheses H_{6b} and H_{6d}, are not supported by the results of this exploratory research and H_{6e} is supported. Demographics are almost five percent of the reason participants value the New Urban characteristic of diversity.

The equation for this dependent variable is: Diversity = 3.002**-.008** (age) +.057 (race) -.132 (gender) -.003** (annual income) -.062 (child status).

Chapter V: Conclusion

The purpose of this exploratory research is to determine whether demographics are factors in valuing characteristics of New Urbanism among its participants. This study examines demographic attitudes toward six characteristics of New Urbanism. These characteristics are density, mixed-use, mixed type, transportation, architectural style, and diversity.

Methodology and Results

Multiple regression was used to test the hypotheses. Overall, the results of this non-random sampling found that demographics play an inconsequential role when the surveyed determine if they value a particular characteristic of New Urbanism.

Density

The results showed that male participants are more likely to value density over female participants. Although the literature is silent about the relationship between gender and willingness to live in high density communities, the preliminary results of the non-random sample suggest that males are more willing to live in higher density neighborhoods. As will be explained, additional research is needed to further evaluate this finding.

Mixed-Use

As with density, male subjects of this study were found more likely to value mixed-use over female participants. The preliminary results also concluded that participants without children are more likely to value mixed-use than subjects with children. Additional research is needed to conclude the possible reasons behind the results. The research done (through the

survey and through the literature) provides no indication as to why participant's gender and child status were factors.

Mixed Type

Subjects involved in this study with lower annual incomes are more likely to value mixed type than those with a higher annual income. Participants without children were also found to value mixed type more than those with children. As with each of the results, scientific research must be done to find a correlation between these initial findings if one even exists.

Transportation

The study found that participants with lower annual incomes value transportation choices more than subjects with a higher annual income. No other demographic was significant to this study and no reason behind this early finding can be inferred. Additional research is needed.

Architectural Style

Architectural style was found to be valued among those participants with a higher annual income. As with transportation, no other demographic in this research was found to be significant to the preliminary study.

Diversity

The results of the study found that older participants of the study and those with a lower annual income were more likely to value diversity in their neighborhoods. These exploratory results are fascinating and additional research is needed to further explore these initial findings.

Study Improvement/New Research

A definite improvement on this preliminary study would be to conduct the research using scientific sampling. For instance, if random sampling was utilized, the research could make

inferences on a larger population concerning demographics and their attitudes towards the characteristics of New Urbanism. This research cannot make any generalizations about why the participants surveyed answered how they did because of the non-random sampling used. It is a definite weakness that could be resolved through a scientific sampling.

Another improvement would be the addition of a follow-up question, asking for the participant to describe their present neighborhood as well as where they have lived historically. Knowing where the subject currently lives and where they have lived, the responses could be compared to their previous and current living conditions and then analyzed. An additional improvement would be to have the individual filling out the survey provide the reason why they agreed or disagreed with a question. Trends in the responses could be examined and further inferences into why the results were the way they were could be made.

There are many opportunities for new research when examining the characteristics of New Urbanism. Each characteristic is a new research study by itself. A researcher might want to develop a model for New Urbanism builders. As this preliminary study found that demographics play an extremely small part in participants' value of the characteristics of New Urbanism, a more scientific study may present different results.

Summary

The purpose of this exploratory study was to build upon existing scholarly work, including the Applied Research Project of Dave Waugh, by examining whether or not demographics affect participants of this study's attitude towards the characteristics of New Urbanism. Demographics were found to play a trivial role behind why the subjects of this study

valued characteristics of New Urbanism. The study also showed which demographics are significant in assessing a participant's opinion of the traits of New Urbanism.

Builders and Economic Development Directors can use scientific research on this subject to better determine if a New Urban community is right for their cities and the demographics they serve. Knowing that specific groups of people value a characteristic of New Urbanism over others aids in understanding why some neighborhoods thrive and others fail. The author recommends that a scientific study be done on this subject to better understand demographics and their attitude towards the characteristics of New Urbanism.

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Appendix I-Survey Questionnaire

1. I prefer a neighborhood where young, middle aged and the elderly have housing options in the neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

2. I prefer a neighborhood composed of residents with very similar incomes.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

3. I prefer a more compact neighborhood with smaller lot sizes.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

4. A smaller house lot size is acceptable if a park or other public space is located close to the home.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

5. Neighborhoods should not be spread out too much (very low density).

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

6. A place where adults could meet such as a small restaurant would be nice to have located inside our neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

7. Mixing uses in the same building, such as having offices or housing located over a retail store, near other residential areas is acceptable.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

8. Places to work and places to live can exist side by side.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

9. A neighborhood should have parks and other public places where people can meet.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

10. I would like a dry cleaner, small store, or day care center inside my neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

11. I would like a variety of uses such as retail or office space to be located close to our neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

12. I would prefer that our neighborhood have land uses other than just more housing subdivisions around it.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

13. I like a neighborhood that offers a range of residence types such as condos or single family.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

14. Condos, townhouses, and single-family homes should be located away from each other.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

15. A variety of housing types make a better neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

16. I prefer a neighborhood that doesn't require an automobile to get to every destination.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

17. I would like a choice of options in addition to the automobile for transportation.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

18. I like to be able to walk to a destination (ex. school, store) in our neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

19. I feel safe walking in our neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

20. It is important that neighborhood children be able to walk to school.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

21. Access to public transportation would be good for our neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

22. A light rail connection to our neighborhood would be beneficial.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

23. I would support bus service to our neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

24. It is important to have consistency of architectural style controlled within the neighborhood.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

25. I prefer traditional style homes such as those with a usable front porch.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

26. What is your age?

27. What is your race?

28. What is your gender?

- Male
- Female

29. What is (or was) your annual income?

30. Are you retired?

- Yes
- No

31. Do you have children?

- Yes
- No